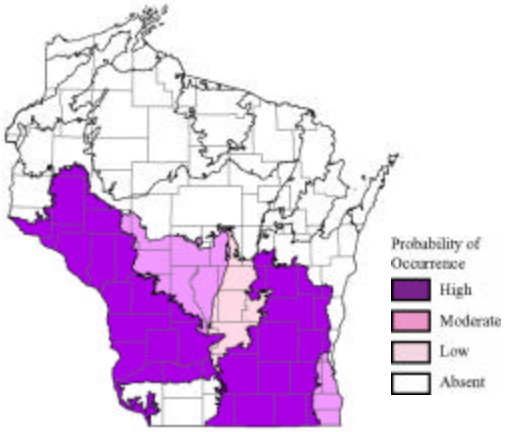
Eastern Massasauga Rattlesnake (*Sistrurus catenatus catenatus*)

Species Assessment Scores*

State rarity:	5
State threats:	5
State population trend:	5
Global abundance:	4
Global distribution:	5
Global threats:	4
Global population trend:	5
Mean Risk Score:	4.7
Area of importance:	2

* Please see the Description of Vertebrate Species Summaries (Section 3.1.1) for definitions of criteria and scores.



Ecological Landscape Associations
Please note that this is not a range map. Shading does not imply that the species is present throughout the Landscape, but represents the probability that the species occurs somewhere in the Landscape.

Landscape-community Combinations of Highest Ecological Priority

Ecological Landscape	Community
Southeast Glacial Plains	Calcareous fen
Southeast Glacial Plains	Dry prairie
Southeast Glacial Plains	Dry-mesic prairie
Southeast Glacial Plains	Emergent marsh
Southeast Glacial Plains	Floodplain forest
Southeast Glacial Plains	Mesic prairie
Southeast Glacial Plains	Shrub-carr
Southeast Glacial Plains	Southern sedge meadow
Southeast Glacial Plains	Wet-mesic prairie
Western Coulee and Ridges	Dry prairie
Western Coulee and Ridges	Dry-mesic prairie
Western Coulee and Ridges	Emergent marsh
Western Coulee and Ridges	Floodplain forest
Western Coulee and Ridges	Oak barrens
Western Coulee and Ridges	Sand prairie
Western Coulee and Ridges	Shrub-carr

Threats and Issues

- Net impacts of climate change are unclear for this species.
- Habitat loss and degradation from the conversion of suitable upland habitat to agricultural land and from natural succession of open-canopy wetlands to closed canopy conditions limits suitable habitat for this species.
- Harvesting of marsh hay has contributed to significant snake mortality.
- Impounding of suitable wet meadow/sedge meadow habitats eliminated essential habitat. Drawdown management of these systems during massasauga overwintering appears to have contributed to their decline (e.g., in Dike 17).

- Potential hydrologic changes resulting from land use and dams on the Mississippi, Black, and Chippewa Rivers are a threat to this species.
- Illegal harvest is still a threat to Eastern massasauga rattlesnakes. Poaching of this species for pets has been observed as recently as 2001.
- Habitat degradation and alteration from non-native invasive plants threatens this species. Reed canary grass (and probably giant reed grass as well) reduces the carrying capacity of burrowing crayfish. These crayfish provide the primary overwintering burrows for this snake. Seasonal use by Eastern massassauga rattlesnakes of reed canary-dominated areas is also much lower than that of areas with native wetland vegetation.
- Roadsides, railroad corridors, and utility line corridors through massasauga habitat were heavily hunted by bounty hunters, contributing to the decline of the species. Persecution of this species continues at a very low level, primarily because this animal is nearly extirpated in Wisconsin.
- Roads contribute to habitat fragmentation and road mortality.

Priority Conservation Actions

- Extant populations of Eastern massasauga rattlesnakes exist on either state or federa1 lands or within state or federal project area boundaries. Efforts are needed to permanently protect habitat on remaining private lands in these areas, particularly for the Lower Black River and Turtle Lake/Creek projects.
- Management is needed on both the Black and Chippewa Bottoms to reverse the effects of natural succession by restoring open canopy conditions. This work has begun at Tiffany Wildlife Area but needs to occur at Van Loon Wildlife Area as well.
- Habitat restoration is needed at sites from which the species has been extirpated but which might support viable populations in the future (e.g., Turtle Valley).
- Reintroductions are needed at extirpated or nearly extirpated sites where ample suitable habitat exists to support a population (e.g., Yellow River/Turtle Creek).
- Wisconsin DNR policy is needed regarding reintroduction efforts for this species.
- The state Endangered Species Act needs amending to better protect habitat of listed species.
- Strides are needed in policy and education efforts to better represent and consider wildlife habitat in zoning and planning decisions.
- Landowner, general public, and legislature education is needed in order to obtain support for potential reintroduction efforts. Education may also assist in gaining permanent or long term protection (possibly through conservation easements) of occupied sites on private lands.
- Additional research is needed to evaluate repatriation as a conservation strategy.
- Long term monitoring is needed to evaluate population status and track trends of all extant populations.
- Continue to work with the U.S. Fish and Widlilfe Service on completion of Candidate Conservation Agreements for the eastern massasauga rattlesnake on the lower Chippewa and Black River Bottoms.